Reflective Peer Consultation as an Intervention for Staff Support in the NICU

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A B S T R A C T

Professional staff members in a neonatal intensive care unit (NICU) implementing the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) expressed the need for enhancement of their well-being. The Neurorelational Framework (Lillas and Turnbull, 2009) served as a guide for supporting staff education about the science of brain development and function and the provision of trauma-informed care. This paper describes an innovative pilot project implementing a reflective peer consultation group (RPC) facilitated by an infant psychiatrist. The RPC group provided opportunities for education about stress and triggers to stressful responses, and promoted staff reflection as well as strategies to promote stress recovery. Staff reported improved physical and emotional well-being after participating in RPC groups. Additionally, group members implemented changes to their clinical practices with infants and their parents in the NICU to facilitate recovery from stress in intensive care units.

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In 2012, professional staff from both the neonatal intensive care unit (NICU) and infant mental health (IMH) services met to discuss a pilot project to integrate infant mental health (IMH) principles into a Canadian NICU setting. Staff members were experiencing significant stress and morale was low. At the time, the staff were implementing individualized developmental care using the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) and were starting to recognize that the infants, parents and staff on the unit had significant psychological needs that were not currently being adequately addressed. The pilot project involved a number of supportive IMH practices that were found to be helpful. This article focuses on the implementation and effectiveness of reflective peer consultation (RPC). Reflective peer consultation was implemented to enhance the psychological and emotional well-being of professional staff, which is a necessary component of a high functioning NICU environment. The multidisciplinary clinical leaders in the NICU, in collaboration with the infant psychiatrist, decided that the best option would be for the infant psychiatrist to serve as a consultant and facilitate and lead group process with staff. In this role, the consultant could encourage reflective process in individual staff members and within the group.

The Neurorelational Framework (NRF)1 was used as a guide for providing information to staff regarding the neuroscience of brain development and functioning. The NRF was already being used in an infant mental health outpatient practice and as such, the developers of the pilot group program were familiar with the model. NRF principles had not previously been applied to work in the NICU, and the infant psychiatrist sought consultation from one of the authors of the NRF for suggestions on how to apply NRF principles to an intensive care environment. Because staff in the NICU have extensive medical training, they were already familiar with the medical language used in NRF theory to explain the neurophysiologic responses to stress.

Neurorelational Framework

The Neurorelational Framework (NRF) was developed by Connie Lillas and Janiece Turnbull.1 It integrates neuroscience and interdisciplinary knowledge about early human development with practices in early childhood across systems of care (education, mental health, medical care, social services, rehabilitation and developmental services). The NRF encompasses multidisciplinary theories and approaches and is informed by three foundational concepts: 1) the quality of our relational experiences sets up adaptive or toxic stress patterns;16 2) early brain networks develop through serve and return experiences and the quality of those serve and return experiences sets up positive or negative lifelong expectations;14 and 3) early brain architecture is built through lived experiences.7 Recently, the NRF has further delineated three steps that provide a clinical translation of the three key brain development concepts. This article will focus on the application of step one of the NRF as it was implemented in the RPC with the NICU staff.

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NRF Step One

Step one and the first key concept about early childhood development both describe how “positive stress” is healthy. That is, experiencing some stress is necessary for developmental progress to occur. When a young child experiences stress that is buffered by a nurturing caregiver, he learns ways to regulate himself and also learns that he can rely on others to help him manage stress. Step one also includes the capacity to experience healthy sleep, especially the ability to cycle into a deep restorative sleep that is important to overall health.

Step one describes the continuum of states of arousal and stress responses, using colored zones to characterize them. The calm, alert, aware state is the “green zone” in which one experiences happiness and other positively valued emotions. The “red zone” is a flooded, agitated, irritated state that is often linked with high activation of the sympathetic nervous system. Emotions experienced in the “red zone” may include anger, rage, or panic. The “blue zone” is a hypo-alert, detached, or withdrawn state that may include feelings of sadness and dissociative behaviors. The “blue zone” involves higher activation of the parasympathetic nervous system. Because the autonomic nervous system (ANS) is a dynamic system, there are more fluctuations than the “all or nothing” extremes of high sympathetic and high parasympathetic activation. The “combo zone” reflects a combination of sympathetic and parasympathetic nervous system activity, which includes activation and inhibition occurring simultaneously. The “combo zone” describes a hypervigilant state most often associated with anxiety.

Homeostasis, Allostatic and Alldynamic Regulation

The concepts of homeostasis, allostatics, and alldynamic regulation provide further elaboration of the processes that occur during stress-related responses. Homeostasis is defined as those processes that maintain the relative constancy of the internal environment. From the NRF perspective, homeostasis is reflected when a person is in the “green zone.”

Allostatics is a term that incorporates higher neural systems in visceral regulation. Allostatics reflects flexible and dynamic regulation whereby higher level brain mechanisms support rapid and large shifts across multiple interacting physiological variables and subsequent recovery back to baseline. The NRF defines toxic stress as allostatic load that leads to too much rigidity or too much chaos in an individual’s functioning.

Four toxic stress patterns are described in the literature. The patterns include: 1) over reactivity – stress responses that occur too frequently and too quickly; 2) repeated reactivity – inability to adapt to “normal” challenges and transitions; 3) extended reactivity – prolonged stress responses that take too long to recover (more than 10 to 20 minutes); and 4) dampened recovery – inability to recover from stress response back to baseline (healthy sleep cycle, healthy awake state). Toxic stress patterns are frequently referred to as being in the “red zone”. Research indicates that toxic stress contributes to the etiology of lifelong physical and mental health problems, addictions and many diseases. A knowledge of toxic stress and the impact of toxic stress assists with the utilization of trauma-informed interventions.

Alldynamic regulation expands the concept of allostatics to highlight the reciprocal interactions between the central (top-down) and autonomic (bottom-up) nervous systems that support behavioral flexibility and adaptability over time. These regulatory processes help bring the individual from a heightened reactivity in the “red zone” back to a more regulated state in the “green zone”.

Professional staff in the NICU are frequently exposed to traumatic events including life-sustaining measures on infants, infants dying, and administering intensive medical interventions to premature infants. Members of the RPC group described themselves as frequently experiencing toxic stress and a high allostatic load. The goal of the RPC group was to increase homeostasis for staff by moving staff from toxic stress or allostatic load (red zone) to a more healthy positive stress level (green zone). Understanding and applying the NRF step one principles enabled staff in the RPC to have neuroscientific information that they could then translate into their day-to-day work experiences.

Reflective Peer Consultation (RPC) Model for Staff Support

Reflective process that enhances staff’s developmental and relationship-based caregiving is a critical component of training and approaches designed to enhance developmentally supportive care for infants (e.g. Newborn Individualized Developmental Care and Assessment Program, NIDCAP). Reflective process can also be used to inform staff regarding their own stress and related mental health needs. Reflective consultation may function as a therapeutic intervention for staff providing intensive care services to infants and families. Reflective consultation is widely used in IMH work outside the intensive care setting and has been embraced as effective when provided to professionals who work with high-risk parents and their infants (e.g. 8,9). To date, there is sparse literature on the effectiveness of reflective consultation in intensive care.

Challenges in the Implementation of a Reflective Consultation Group for Staff

Differential Power Positions among Group Members

When care teams are composed of individuals in differing positions of power, assuring trust and confidentiality becomes challenging. Developing a cohesive group by balancing pre-existing hierarchical structure is essential during the first few group sessions. This is achieved by explicit discussion regarding the value of all disciplines in their contributions to the functioning of the NICU. For example, the group talked about the different hierarchical structures they currently experienced in their work. The benefits of the hierarchy in the NICU environment were recognized, as was the need for group participants to have equal say and for everyone to have equal value. The RPC facilitator modeled this perspective in the first few group meetings. Subsequently, the participants did this independently.

Staff Shifts and Work Load

Nursing staff typically work ten- and twelve-hour shifts, three to four days a week, whereas as neonatologists typically work blocks of time where they might be on the unit at one site for one week and then at another site the next week. This makes it challenging to find a meeting time that works consistently for all staff members in the group. Staff members who wished to participate in the group may have been on call, up all night with little or no sleep, and were often exhausted. Staff who are “on service” when the group convened frequently responded to calls from the unit during the group meetings because they were not relieved of their responsibilities to attend. Reflective groups work best when members are in a calm alert “green zone” state, but responsibility for care of the babies and families comes first. Discussion of these issues in the group was essential to assure cohesiveness and to support group members and other NICU staff who were unable to fully participate in the RPC.

Patchy Attendance for Groups

Without consistent attendance, it is hard to maintain internal group consistency and cohesion. Group rules and culture need to be discussed upon the initiation of the group and reviewed each time the group meets. These “ground rules” include consistent attendance, confidentiality, and development of a trusting relationship with each member. However, there typically needs to be a flexible policy regarding arriving on time and needing to come and go depending on caregiving responsibilities. As most intensive care staff may be unfamiliar with reflective practice group process, the facilitator may need to develop a handout explaining reflective consultation process.
During the preliminary group sessions, education about reflective practice, reflective consultation and the NRF step one can be provided. If staff members join the group late and miss key information, it becomes challenging to effectively integrate them into the existing group process. The group facilitator must be mindful of these dynamics and review core concepts frequently throughout the duration of the group process.

**Case Example of an RPC Group**

The reflective group was scheduled to occur every 2 weeks for 2 hours over lunch and staff were encouraged to bring their lunch when attending. Some staff came on time and others came late. Staff occasionally needed to leave the group to respond to clinical issues. The first 20 to 30 minutes were used to allow staff to develop rapport with each other and voice their concerns regarding specific clinical issues. After this initial “warm up” period and after a discussion of the structure and function of the group, the facilitator provided didactic teaching on brain science and fielded questions about the NRF framework.

Staff members were then encouraged to consider challenges that emerged during the week, which included: 1) issues on the unit with parents, with other staff or with management and 2) personal issues including struggles parenting their own children, relationship challenges, and other topics. The facilitator highlighted common themes and applied relevant NRF steps to the discussion focusing on supporting staff about how to implement strategies before the next group session.

Step one was highlighted most frequently by the facilitator when the groups first started, and over time, increasingly by the group members themselves. Stress responses (red, blue and combo) were reviewed in detail and stress recovery strategies were applied to examples provided by group members.

Staff members were encouraged to adapt their understanding of step one and make their own healthy sleep a priority. This was often a challenge for staff who were on call and who often worked different shifts. Strategies to enhance quality and duration of sleep were discussed and staff members were also encouraged to get help from their family physicians. Any staff member who was struggling with his or her own mental health issues was encouraged to seek professional help from resources outside the hospital setting.

The facilitator also used self-disclosure to enhance group process. For example, when a staff member was struggling with the hectic pace of the NICU environment, the facilitator shared strategies she used when assessing and intervening with patients in a busy clinic environment. Similarly, when staff members were struggling with how to deal with angry and verbally aggressive parents in the intensive care unit, the facilitator shared ideas of what worked for her in similar situations in an IMH clinic environment.

Staff members indicated that they felt they could not discuss work stressors with adults in their own personal support network and that this interfered with relationships with spouses, friends, and family. However, as group members started to develop better social and emotional connectedness with each other, they developed insight into their relationships with others who did not have an intimate understanding of their work life.

**Changes Observed by RPC Participants**

The RPC group process has been ongoing for approximately three years. The NICU team has described impressive changes in team functioning, collaboration across disciplines, and decreased stress levels. The team is more cohesive and there is more effective staff collaboration on the unit. There is less hierarchical structure and the doctors and nurses appear to be on a more even level in the group. Group members have discussed how utilizing step one has been beneficial and have described experiencing less toxic stress. They have shared specific strategies that have been personally beneficial to reduce stress both at home and at work.

Prior to the implementation of RPC, staff members were experiencing various forms of trauma including vicarious trauma (e.g. empathizing with the parents’ stress and grief), as well as the trauma that typically accompanied daily life in the NICU (e.g. having to do painful interventions on premature infants, watching infants die). Staff members demonstrated improvement in setting boundaries for themselves, which includes compartmentalizing the stress of work and not bringing it with them to their personal lives. They described higher morale and more personal satisfaction in their work and personal relationships.

Staff indicated that even though the challenges of their roles have increased (e.g. higher numbers of infants admitted to the unit), they feel that they are managing the stress related to these issues better. Importantly, most staff members consistently attended the reflective group meetings, even coming to group on their own personal time, which demonstrates how highly they value the RPC process.

There has also been significant improvement in the way the information and strategies are being applied to the infants on the unit. Staff members who attended the group utilized step one of the NRF extensively with both infants and parents on the unit. This led to a trauma-informed approach to the care of the infants, as staff members more quickly recognized when an infant became stressed and then identified triggers for stress responses. Staff were problem solving as to what strategies might soothe and calm the infants to help them rebound to a healthier state (“green zone”). Staff members were also utilizing the same set of principles with the parents when the parents became stressed. They were better able to recognize when parents experienced toxic stress and actively sought help for parents when that occurred (e.g. engaging the unit social worker to provide support or helping the parent connect to adult mental health services).

**Conclusion**

Working in an NICU environment can be very challenging for the professional staff. They frequently describe sleep disturbances, anxiety, and other emotion regulation issues. Staff must also cope with all of the various types of traumatic experiences that occur in a high-paced, intensive care environment. A reflective process consultation group was developed for intensive care unit staff. The RPC group used the NRF to provide staff with information and education about stress processes in infants and their caregivers. Group members reported that engaging in a reflective peer consultation process was beneficial and improved both their mental and physical health. As a result, staff members were better equipped to support fragile infants and their families during hospitalization in intensive care settings.

**References**


